

FORM PTO 1390 (REV 10-2003)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER 17081/008001
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371			U.S. APPLICATION NO. (If known, enter 7 (for 17)) 10/507972
INTERNATIONAL APPLICATION NO. PCT/KR02/02399	INTERNATIONAL FILING DATE 20 December 2002	PRIORITY DATE CLAIMED 15 March 2002	
TITLE OF INVENTION APPARATUS AND METHOD FOR MANUFACTURING METAL MOLD USING SEMISOLID RAPID TOOLING			
APPLICANT(S) FOR DO/EO/US Koo-Dong Kim et al.			

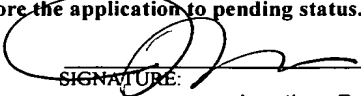
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

- ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
- ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing 35 U.S.C. 371.
- ☒ This is an express request to begin national examination procedures (35 U.S.C. 371 (f)). The submission must include items (5), (6), (9) and (21) indicated below.
- ☒ The US has been elected (Article 31).
- ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
 - ☐ is attached hereto (required only if not communicated by the International Bureau).
 - ☒ has been communicated by the International Bureau.
 - ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
- ☒ An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2)).
 - ☒ is attached hereto.
 - ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
- ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - ☐ are attached hereto (required only if not communicated by the International Bureau).
 - ☐ have been communicated by the International Bureau.
 - ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - ☐ have not been made and will not be made.
- ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
- ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
- ☒ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11 to 20 below concern document(s) or information included:

- ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
- ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
- ☐ A preliminary amendment.
- ☒ An Application Data Sheet under 37 CFR 1.76.
- ☐ A substitute specification.
- ☐ A power of attorney and/or change of address letter.
- ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
- ☒ A second copy of the published international application under 35 U.S.C. 154(d)(4).
- ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
- ☒ Other items or information: Copy of International Search Report; Return Receipt Postcard

22511
PATENT TRADEMARK OFFICE

U.S. APPLICATION NO. 10/507972		INTERNATIONAL APPLICATION NO. PCT/KR02/02399		ATTORNEY'S DOCKET NUMBER 17081/008001																																																						
21. <input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)): <input checked="" type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1080.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$920.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$770.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$730.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 ENTER APPROPRIATE BASIC FEE AMOUNT = Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).				CALCULATIONS PTO USE ONLY <table border="1" style="width:100%; border-collapse: collapse;"><tr><td style="width:50%;">\$ 1,080.00</td><td style="width:50%;"></td></tr><tr><td>\$</td><td></td></tr><tr><td colspan="2">CLAIMS NUMBER FILED NUMBER EXTRA RATE</td></tr><tr><td>Total claims</td><td>22-22 =</td><td>x</td><td>\$ 0.00</td></tr><tr><td>Independent claims</td><td>2-3 =</td><td>x</td><td>\$ 0.00</td></tr><tr><td colspan="3">MULTIPLE DEPENDENT CLAIM(s) (if applicable)</td><td>+</td></tr><tr><td colspan="3">TOTAL OF ABOVE CALCULATIONS =</td><td>\$ 1,080.00</td></tr><tr><td colspan="3"><input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.</td><td>\$ 540.00</td></tr><tr><td colspan="3">SUBTOTAL =</td><td>\$ 540.00</td></tr><tr><td colspan="3">Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492 (f)).</td><td>\$</td></tr><tr><td colspan="3">TOTAL NATIONAL FEE =</td><td>\$ 540.00</td></tr><tr><td colspan="3">Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property</td><td>+ \$ 40.00</td></tr><tr><td colspan="3">TOTAL FEES ENCLOSED =</td><td>\$ 580.00</td></tr><tr><td colspan="3" rowspan="2"></td><td>Amount to be refunded:</td><td>\$</td></tr><tr><td>charged:</td><td>\$</td></tr></table>		\$ 1,080.00		\$		CLAIMS NUMBER FILED NUMBER EXTRA RATE		Total claims	22-22 =	x	\$ 0.00	Independent claims	2-3 =	x	\$ 0.00	MULTIPLE DEPENDENT CLAIM(s) (if applicable)			+	TOTAL OF ABOVE CALCULATIONS =			\$ 1,080.00	<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.			\$ 540.00	SUBTOTAL =			\$ 540.00	Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492 (f)).			\$	TOTAL NATIONAL FEE =			\$ 540.00	Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property			+ \$ 40.00	TOTAL FEES ENCLOSED =			\$ 580.00				Amount to be refunded:	\$	charged:	\$
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a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0591 . A duplicate copy of this sheet is enclosed. d. <input checked="" type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.				NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status. SEND ALL CORRESPONDENCE TO: <div style="text-align: right; margin-top: 20px;"> SIGNATURE: _____ NAME: Jonathan P. Osha</div>																																																						
CUSTOMER NUMBER: 22511				33,986 REGISTRATION NUMBER																																																						

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**FEE TRANSMITTAL
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT (\$)** 580.00**Complete if Known:**

Application Number	Not Yet Assigned
Filing Date	Concurrently Herewith
First Named Inventor	Koo-Dong Kim
Examiner Name	Not Yet Assigned
Art Unit	N/A
Attorney Docket No.	17081/008001

METHOD OF PAYMENT (check all that apply)
☐ Check ☒ Credit Card ☐ Money Order ☐ Other ☐ None
☐ Deposit Account:

Deposit Account Number

50-0591

Deposit Account Name

Osha & May L.L.P.

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☐ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$) 0.00**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from below	Fee Paid
22	-22** =		0.00
Independent Claims	2	-3** =	0.00
Multiple Dependent			

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40.00
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	
Other fee (specify)		2611	PCT: PTO not ISA or IPEA		540.00

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 580.00**SUBMITTED BY**

Name (Print/Type) Jonathan P. Osha

Registration No.
(Attorney/Agent)

33,986

(Complete if applicable)

Telephone (713) 228-8600

Signature

Date

September 15, 2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. **EV52606924205**, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: September 15, 2004

Signature:

(Toni A. Hill)

Application No. (if known): Not Yet Assigned

Attorney Docket No.: 17081/008001

Certificate of Express Mailing Under 37 CFR 1.10

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Alexandria, VA 22313-1450

on September 15, 2004
Date



Signature

Toni A. Hill

Typed or printed name of person signing Certificate

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

Transmittal Letter to the United States Designated-Elected Office

10/507972

JT12 Rec'd PCT/PTO 15 SEP 2004

Application No. (if known): 10/168,261

Attorney Docket No.: 04422/002001

Certificate of Express Mailing Under 37 CFR 1.10

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on September 15, 2004
Date



Signature

Toni A. Hill

Typed or printed name of person signing Certificate

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Declaration (Korean Language)

Application No. (if known):

Attorney Docket No.: 17081/008001

Certificate of Express Mailing Under 37 CFR 1.10

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Application Data Sheet